Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application.

1. (Original) A process for increasing the circulating levels of a self protein in the blood stream of an immunocompetent animal which comprises delivering a viral vector *in vivo* to muscle cells of said animal by intramuscular injection in an amount sufficient to obtain expression of and increase the circulating level of said self protein in the bloodstream of said animal for a period greater than about 30 days, wherein said self protein is a polypeptide hormone and undergoes secretion, diffusion or transport to the circulation upon expression *in vivo*.

2. (Original) The process of claim 1 wherein the animal is a primate.

3. (Original) The process of claim 2 wherein the primate is a human.

4. (Original) The process of claim 1 wherein the viral vector is a replication-defective adenoviral vector or a retroviral vector.

5. (Original) The process of claim 1 wherein the self protein is a cytokine, colony stimulating factor, nerve growth factor, insulin, glucagon, rennin, parathyroid hormone, growth hormone, growth factor or erythropoietin.

6. (Original) The process of claim 1 wherein the circulating level of the self protein is increased for a period of time greater than about 60 days.

7. (Original) The process of claim 1 wherein the circulating level of the self protein is increased for a period of time greater than about 90 days.

8. (Original) The process of claim 1 wherein the circulating level of the self protein is increased for a period of time greater than about 120 days.

9. (Original) The process of claim 1 wherein the circulating level of the self protein is increased for a period of time ranging from about 90 days to about 365 days.

10. (Original) The process of claim 1 wherein the muscle cells are cardiac muscle cells or skeletal muscle cells.

11. (Original) The process of claim 1, wherein said immunocompetent animal is being treated with an immunosuppressant.

12. (Original) A process for increasing the circulating levels of a self protein in the blood stream of an immunocompetent animal which comprises transforming muscle cells *in vivo* with a viral vector encoding a self protein, wherein the expression vector is delivered to said animal by intramuscular injection in an amount sufficient to obtain expression of and increase the circulating level of said self protein in the bloodstream of said animal for a period greater than about 30 days, wherein said self protein is a polypeptide hormone and undergoes secretion, diffusion or transport to the circulation upon expression *in vivo*.

13. (Original) The process of claim 12 wherein the animal is a primate.

14. (Original) The process of claim 13 wherein the primate is a human.

15. (Original) The process of claim 12 wherein the expression vector is a viral vector.

16. (Original) The process of claim 15 wherein the viral vector is a replication-defective adenoviral vector or a retroviral vector.

17. (Original) The process of claim 12 wherein the polypeptide is a cytokine, colony stimulating factor, nerve growth factor, insulin, glucagons, rennin, parathyroid hormone, growth hormone, growth factor or erythropoietin.

18. (Original) The process of claim 12 wherein the circulating level of the self protein is increased for a period of time greater than about 60 days.

19. (Original) The process of claim 12 wherein the circulating level of the self protein is increased for a period of time greater than about 90 days.

20. (Original) The process of claim 12 wherein the circulating level of the self protein is increased for a period of time greater than about 120 days.

21. (Original) The process of claim 12 wherein the circulating level of the self protein is increased for a period of time ranging from about 90 days to about 365 days.

22. (Original) The process of claim 12 wherein the muscle cells are cardiac muscle cells or skeletal muscle cells.

23. (Original) The process of claim 12, wherein said immunocompetent animal is being treated with an immunosuppressant.

24. (Original) A process for increasing the circulating levels of a self protein in the blood stream of an immunocompetent animal which comprises

transforming muscle cells of said animal *ex vivo* with an expression vector encoding a self protein; and

delivering said transformed muscle cells to said animal by intramuscular injection in an amount sufficient to obtain expression of and increase the circulating level of said self protein in the bloodstream of said animal for a period greater than about 30 days, wherein said self protein is a polypeptide hormone and undergoes secretion, diffusion or transport to the circulation upon expression *in vivo*.

25. (Original) The process of claim 24 wherein the animal is a primate.

26. (Original) The process of claim 25 wherein the primate is a human.

27. (Original) The process of claim 24 wherein the expression vector is a plasmid.

28. (Original) The process of claim 24 wherein the expression vector is a viral vector.

29. (Original) The process of claim 28 wherein the viral vector is a replication-defective adenoviral vector or a retroviral vector.

30. (Original) The process of claim 24 wherein the self protein is a cytokine, colony stimulating factor, nerve growth factor, insulin, glucagons, rennin, parathyroid hormone, growth hormone, growth factor or erythropoietin.

31. (Original) The process of claim 24 wherein the circulating level of the self protein is increased for a period of time greater than about 60 days.

32. (Original) The process of claim 24 wherein the circulating level of the self protein is increased for a period of time greater than about 90 days.

33. (Original) The process of claim 24 wherein the circulating level of the self protein is increased for a period of time greater than about 120 days.

34. (Original) The process of claim 24 wherein the circulating level of the self protein is increased for a period of time ranging from about 90 days to about 365 days.

35. (Original) The process of claim 24 wherein the muscle cells are cardiac muscle cells or skeletal muscle cells.

36. (Original) The process of claim 24, wherein said immunocompetent animal is being treated with an immunosuppressant.